XTZ CLASS-A100D3

CLASS A INTEGRATED HIGH-END AMPLIFIER

User manual

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Congratulations of your purchase of the CLASS A100 D3.

CLASS A100D3 provides many possibilities, in order to utilize this product in the best way, please read the manual carefully before using Room Analyzer. It takes patience to optimize a hifi system. If you lack experience from this kind of measurements or have any questions, please contact our “free of charge” support.
(**Support** info on the last page of the user manual)

Read the manual before using the product and use all possibilities carefully.

About XTZ

Philosophy	Our reference and starting point is to recreate a natural sound, taking into account that acoustics always is a matter of taste.
XTZ Goal	**Our main goal is to provide the best value for money.** Our concept: - Cut down the numbers of middlemen - Put more money into product quality and less on advertising. - Manufacture cost-effective in large volume - Provide perfect technical solutions
Contakt	Website: **www.xtz.se** E-mail: **info@xtz.se**

Technical presentation

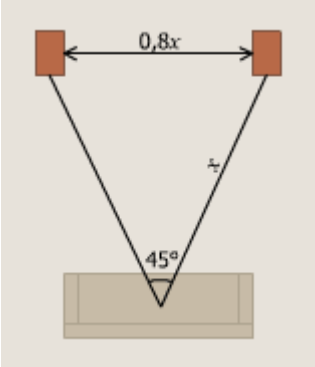
Amplifier	CLASS A100D3 is the third generation of this amplifier. The amplifier is designed to provide maximum sound quality. All inputs and speaker connections are gold plated and of the highest quality. A powerful ring-coil transformer contributes to an effective power supply. Four power output transistors per channel makes it possible to handle high currents. The switching between inputs/sources is done by gold plated relays, which gives a low distortion and a short signal way through the amplifier. The third generation is now built by modules (for future development) and has got a lot of new components with improved quality.	
Class A/Class AB	The amplifier can be switched between class A and AB. This means you do not always have to use class A mode if not feasible. There is also an auto mode available; if the heat sink temperature exceeds 55 C the amplifier selects class AB automatically. Class A or AB mode can also be selected with the remote control. CLASS A MODE Class A mode increases the bias current through the output transistors to achieve the best possible performance. The amplifier draws a lot of power even when idling, creating lots of heat dissipation making it very hot. CLASS AB MODE Class AB is the standard operating mode among conventional amplifiers. The maximum output power is radically higher than in Class A mode. This mode is suitable when you want to play loud for long periods. The risk of overheating is considerably lower than with class A operation.	Class A mode uses a higher nominal quiescent current through the output stage, which in turn produces more heat dissipation. The output transistors heat the cooling sink, and the temperature is measured by a sensor, feeding the information back to the output stage, thus regulating the bias.
Cabinet	The new cabinet, with softer corners, is almost completely made from solid aluminium, enhancing the quality impression as well as the mechanical stiffness. Outer interference is effectively shielded, and the aluminium contributes to spreading the heat generated inside. This improves the heat dissipation, cooling for the amplifier better. I high precision volume control maintains a perfect balance between the channels, regardless of what level is selected. The volume knob, input selector and remote control unit are all made from aluminium.	
Remote control	Class A100 D3 has a newly developed remote control, to adapt it to newer functions and make then handling easier and better.	
RIAA	Preamplifier for MM/MC pick-up. There is a switch to change between MM and MC.	MM = moving magnet ~2-5mV MC = Moving coil ~0.5mV

Preparations

Unpacking	Carefully unpack the product, and pay attention so you don't break anything. If possible, save the packing box for future transportations. Should there be any damage on the product, please contact your retailer. Check that the mains voltage marking on the back panel matches your local mains voltage. If the product is cold, wait to connect the power cord until it reaches room temperature. If you don't do this you may cause damage of the product.	
Accessories	Main power cord Remote control User manual	

Practice of sound / Installation and placement tips

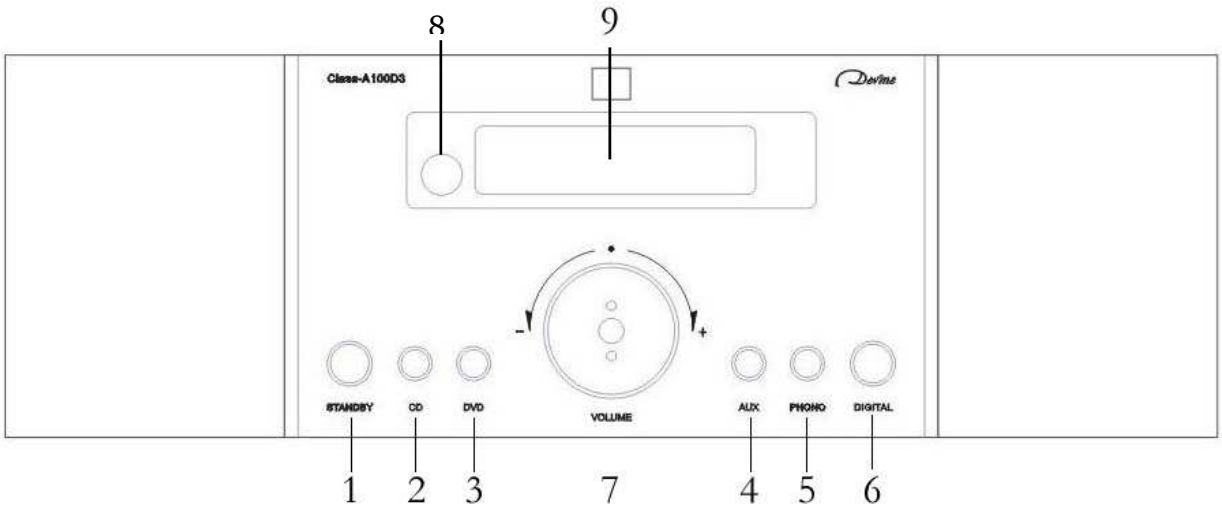
	This chapter contains common information on loudspeaker placement and installation. These are general rules, so there are exceptions.
In which room do you achieve the best sound?	No matter how good the equipment is, in the wrong listening environment it will inevitably sound bad. There are some basic rules concerning a proper loudspeaker installation:
Reflections	Carpets, curtains and soft furniture absorb mid range and high frequency sounds, and this is normally preferable. Big empty areas, on the contrary, reflect it and produce hard reflections that may lead to a blurry dialogue. Apart from colouring the sound, also the perspective of the sound will deteriorate. Reflections in the room can roughly be compared to the reflections that cause ghost pictures on a TV screen.
Amplification of bass frequencies	A loudspeaker that is placed near a wall, ceiling or floor will amplify lower frequencies in a sometimes not desirable way (since it may lead to an indistinct sound reproduction). This amplification becomes even more obvious if the loudspeaker is placed near a corner. Thus, for a sound as clear as possible, the loudspeaker should be placed at least 30 cm (about 12 inch) away from the wall. Some constructions are designed to be placed close to a wall.
Furniture	Be aware that furniture may vibrate creating bad sound at loud bass levels.
Room dimension	Quadratic rooms or rooms where the length is exactly twice as long as the width should be avoided, since they may create unwanted resonances.
Cables	Try to keep them as short as possible. By its electrical parameters, a long conductor will have a bigger influence on the sound than a short one. It may also work as an antenna picking up various signals that may become a constant noise in an active subwoofer. Make sure that all connections are clean and not oxidized. All connections should be mechanically stable, both power, signal and loudspeaker cables. Signal cables should be separated from other cables.

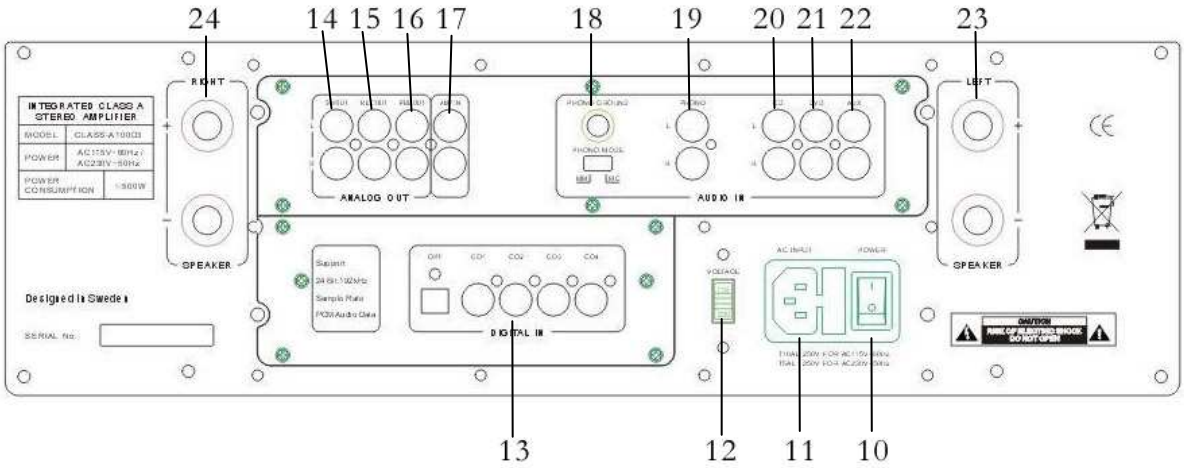
Front speakers	To achieve the best results the front speakers should be placed symmetrically in front of the listener. The distance between the front speakers should be about 80% of the distance to the listener. In other words, the recommended angle between the front speakers is 45°.	
Finally	Please remember that good sound is a matter of taste, so you have to experiment to obtain your favourite one. We wish you best of luck!	

Mounting

Connect with the correct phase	Always connect using the correct phase, from the +-pole on the amplifier to the +-pole on the loudspeaker and respectively for the minus (-) pole	If you by accident connect the other way, there is no risk of damage. However, the phase of the signal will be not correct, resulting in improper sound.
Overload	With high power load under long time there is risk of overloading the driver and/or the amplifier.	If you play extremely loud for a long time there is a risk that you destroy the product.
The initial playing time	Amplifiers do not generally need any “playing in” time. Class A amplifiers need a few minutes in order to stabilize the operating temperature.	Class A mode uses a higher nominal quiescent current through the output stage, which in turn produces more heat dissipation. The output transistors heat the cooling sink, and the temperature is measured by a sensor, feeding the information back to the output stage, thus regulating the bias. The regulation takes a few minutes before it becomes completely stable. During this time high listening volumes should be avoided.

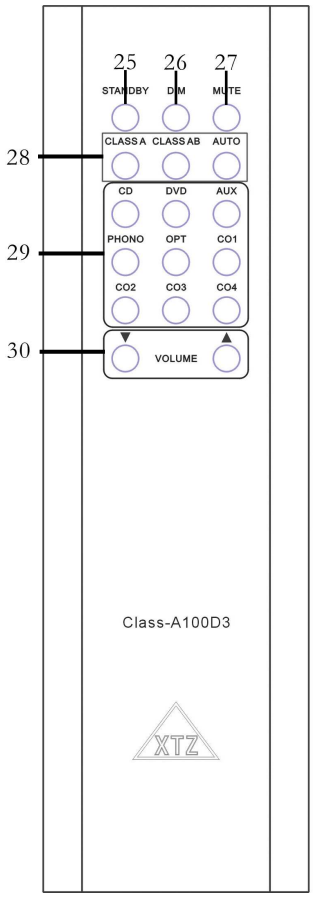
Functional reference





1. **STANDBY**
2. **CD**
3. **DVD**
4. **AUX**
5. **PHONO**
6. **DIGITAL**
7. **VOLYM**
8. **IR**
9. **DISPLAY**
10. **POWER ON/OFF**
11. **AC INPUT**
12. **VOLTAGE**
13. **DIGITAL Inputs**
14. **SUB OUT**
15. **REC OUT**
16. **PRE OUT**
17. **AMP IN**
18. **PHONO MM/MC**
19. **PHONO IN**
20. **CD**
21. **DVD**
22. **AUX**
23. **SPEAKER TERMINALS**
24. **SPEAKER TERMINALS**

Remote control



25. STANDYBY

26. DIM

27. MUTE

28. OPERATION MODE

29. INPUTS

30. VOLUME

1 STANDBY	To set the product in standby mode, without turning it off	
2 CD	CD as source	
3 DVD	DVD as source	
4 AUX	Aux as source	Normally used to connect a TV or decoder
5 PHONO	Phono as source	For connecting your LP player
6 DIGITAL	Choosing the digital inputs	Push it once to change to next digital input
7 VOLUME	Adjusting the volume on the amplifier	
8 IR	Infra red eye	Do not put anything in the way of the IR-eye
9 DISPLAY	All information is shown here	
10 ON/OFF	The main power on/off	Should be set to OFF when going away for a longer time
11 AC INPUT	For connection the power cord	
12 VOLTAGE	The input voltage that is used	EU ~220-240V & USA ~110-130V
13 DIGITALINGÅNG	Digital input, change input by pushing the button one more time.	Push it once to change to next digital input

14 SUB OUT	For connecting active subwoofers	
15 REC OUT	Non volume controlled output. For TAPE/MD recording	
16 PRE OUT	Volume controlled output, from the preamp. Normally connected to AMP IN. Can be used for connecting other power amps	
17 AMP IN	Input to the power amp. Is normally connected to the PRE OUT	
18 PHONO	Switch between MM and MC.	Remember to connect the ground screw from the LP player
19 PHONO IN	LP Player as source	Check what pick-up type is used, and set the amplifier accordingly
Remote control		
20 STANDBY	To set the product in standby mode, without turning it off	
21 DIM	Lower the backlight in the display	
22 MUTE	Sets the volume to zero	”MUTE” in the display.
23 OPERATION MODE	Press CLASS A, CLASS AB or AUTO to put the amplifier into the corresponding operating mode. The display will show your selection. In AUTO mode the built-in microcomputer will automatically set the most suitable mode.	Class A mode uses a higher nominal quiescent current through the output stage, which in turn produces more heat dissipation. The output transistors heat the cooling sink, and the temperature is measured by a sensor, feeding the information back to the output stage, thus regulating the bias. The regulation takes a few minutes before it becomes completely stable. During this time high listening volumes should be avoided.
24 INPUT	Choose source	
25 VOLUME	Volume control	

Technical specifications

Construction type	Integrated amplifier	
Dimensions	158 x 445 x 468 mm (HxWxD)	Inc Feet & Terminals
Weight	22 kg	27kg including cardboard box
Frequency response	5 Hz- 50kHz (non-flatness < 0.5dB)	
SNR Ratio	>100dB (A Weighted, 100W, 8ohm)	
Impedance (input)	20 kOhms	
Voltage gain	42dB	
Damping factor	>100	
AC Power supply	~220-240V & ~110-130V	
POWER	2x50W 8 Ohm (Class A) 2x110W 8 Ohm 2x180W 4 Ohm 2x300W 2 Ohm	
Connections	Gold plated RCA, XLR Speaker output: Banana /Pole screw	
Volume handling	Crystal chip CS3310 for volume control in 0,5dB steg	
DAC	Analog Devices AD1955	

Service & support

Precautions

If the unit becomes unusually hot, you should immediately change the operation mode to CLASS AB by pushing the corresponding button on the remote control.

This amplifier has a protection against overload and short-circuit. When PROTECT is shown on the display, you should immediately turn the unit off. When the reason for the PROTECT warning is found and has been taken care of, you may turn the amplifier on again.

Also, when used under normal condition the unit becomes hot, so you should not cover it or place it in a location with reduced ventilation, i.e closed boxes or narrow areas. Do not place any other equipment on the top of the amplifier. Neither should it be placed near other sources of heat.

Safety

Read the manual and these precautions before taking the unit in operation.

Do not expose the unit to high temperatures.
Avoid placing the unit in closed racks, boxes etc.
Avoid moisture, liquids and dust.
Do not open the cabinet while the AC power cord is connected.
Do not turn on and off the amplifier repeatedly in a short period of time.
Make sure that no objects (coins, needles etc.) fall into the unit.
If you plan to leave the unit unused for a longer time (when on a journey for instance), make sure the AC power cord is not connected.

When connecting:

Make all the necessary connections before turning the unit on. Never connect loudspeaker- or signal cables while the amplifier is turned on.

Service

If you need service contact your local dealer.
You are always welcome to contact us if you have problems with product by e-mail: **support@xtz.se**

Webpage: **www.xtz.se**

ALWAYS pack the product / part very carefully. Unfortunately damages during transportation are very common. If the package is weak, the transporting company does not compensate damages. Always enclose a copy of the receipt and a description of the defect.

Support

Please contact our “free-of-charge” support if you need installation advice, or if any problems occur during the installation.
Contact us by e-mail **support@xtz.se** and include your phone number if you require help, and we will ring you back.

Guarantee

This product is supplied with a ONE year guarantee against manufacturing faults or defects that might alter the performance of the unit. Refer to your supplier for full sales and guarantee terms.